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MIRRORING THE MOBILITY OF THE FUTURE IN THE VIENNA CONVENTION _ A CHALLENGING TASK FOR UNECE ROAD SAFETY FORUM .

cieca
The International Commission for Driver Testing

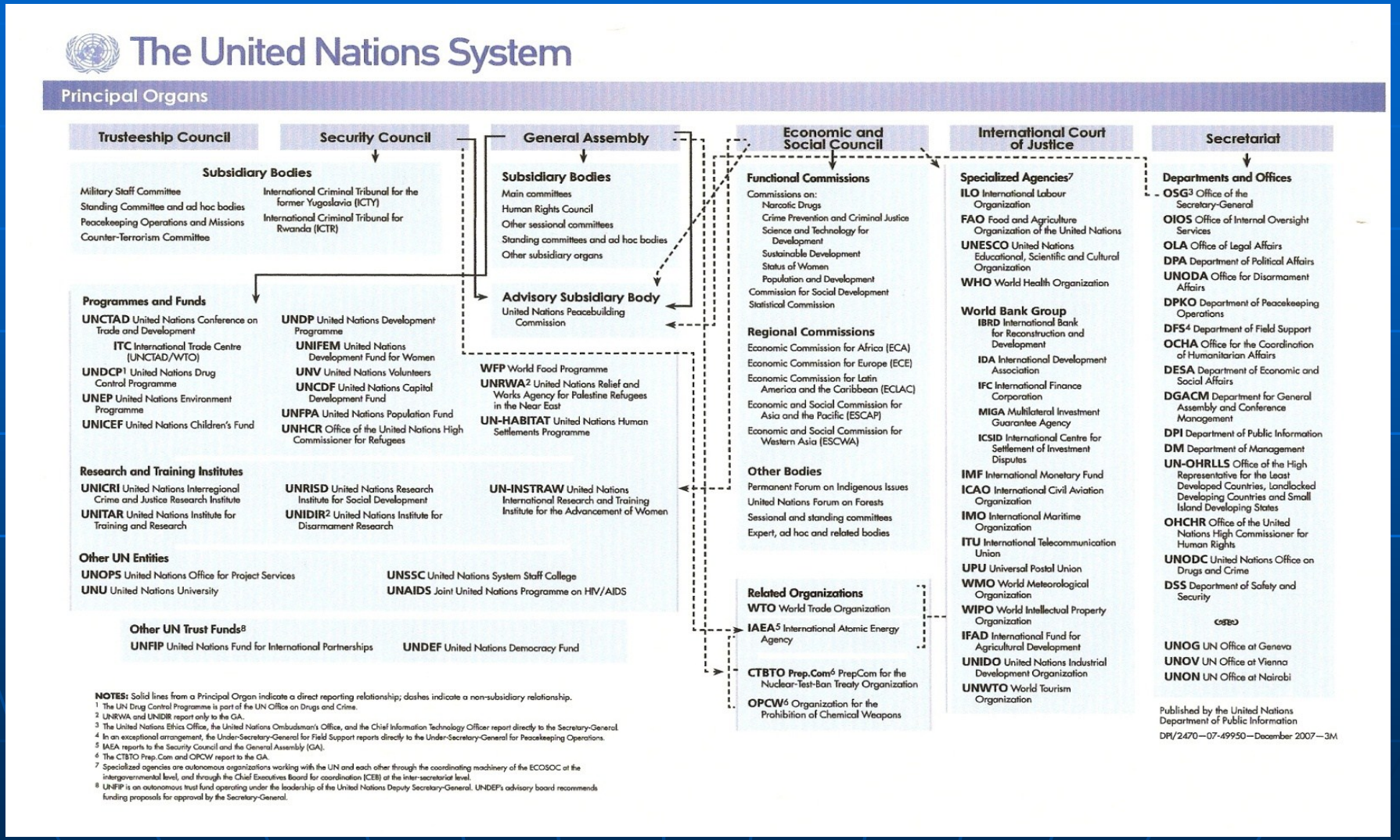
TÜV SÜD

The scenario

The societal changes of these last decades have seen our mobility changing fast:Increasing demand of comunication

- Road Network, Vehicles
- Technology and Intelligent Transport System offering a sustainable mobility
- SAFER MOBILITY
- Upgraded performance standards for vehicle, Technology and ITS upgrading the network
- Seamless, cost efficient, environmentally friendly safe movement of goods and persons.

Where in the UN World ?



WP1_ UNECE Road Safety Forum

- The WP1 is the ONLY Permanent intergovernmental body in the UN dealing with Road Safety

Open not only to the UNECE members

All countries throughout the world are welcomed to implement the Conventions

- Quick answer through Consolidated Resolution RE1 and RE2
- Initiatives and projects to implement road safety and safer mobility in the MDG

WP1 Acting in the ECE policy STAR system

- **S**ituation
- **T**ask
- **A**ction
- **R**esults

According to the G.A. Resolutions and the urgent call to contribute to the sustainable development in the frame of the internationally shared objectives (MDG / SDG)

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Actor : Road Safety Forum (WP1)

UNECE

UN NY

All Contracting Parties *(usually there is a treshold of consensus to be reached)*

If accepted , Convention is amended

In the context of Innovation

- UNECE World Forum for Harmonization of Vehicle Regulations (WP29)

- Active Safety (Lighting and light signalling- GRE) Breaks and Running Gear - GRRF)
- Passive Safety (Protection and Restrains- GRSP)
- General Safety (GRSG)
- Environmental Protection (Pollution, Energy –GRPE & Noise -GRB) + > 40 non permanent technical groups.

The vehicle: A quick glance

- Safety System / Devices are nowadays widely used on board
- ABS (Anti-lock Braking System) ESC (Electronic Stability Control) EVSC (Electronic Vehicle Stability Control) DBC (Dynamic brake control) AEBS (Automated Emergency Braking Systems)
- There are other active safety systems , some still in the testing stage -- FCWS (Forward COllision Warning Systems; LDWS (Lane Departure Warning Systems; Systems that detect the condition of the driver or perform the automatic correction of driving errors

The Vehicle: A perspective in time 2

- Some definition : automation degrees from Tom M. Gasser (BAST)
- • Driver Only:– Human driver executes manual driving task
- • Driver Assistance: – The driver permanently controls either longitudinal or lateral control. The other task can be automated to a certain extent by the assistance system.
- • Partial automation:– The system takes over longitudinal and lateral control, the driver shall permanently monitor the system and shall be prepared to take over control at any time.
- • High automation: The system takes over longitudinal and lateral control; the driver must no longer permanently monitor the system. In case of a take-over request, the driver must take-over control with a certain time buffer.
- • Full automation: “hands-off, feet-off, brain-off” – The system takes over longitudinal and lateral control completely and permanently. In case of a take-over request that is not carried out, the system will return to the minimal risk condition by itself.

Call to update

- **In this frame, in order to ensure a continuous consistency between the Vienna Convention on Road Traffic of 1968 and the vehicle technical regulations developed by the World Forum for Harmonization of Vehicle Regulations (WP. 29), some stark inconguences were considered.**

THUS

- **the idea of including –among the other updates (i.e.*lights*)- a definition of Driver Assistance Systems (DAS) in the Vienna Convention on Road Traffic of 1968 and of its consistency with the relevant principles of the Vienna Convention.**

The issue

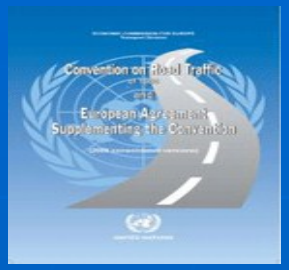
Within technological advancements , what about the role of the driver ?

The key ?

- **These systems assist the driver and do not replace him.**

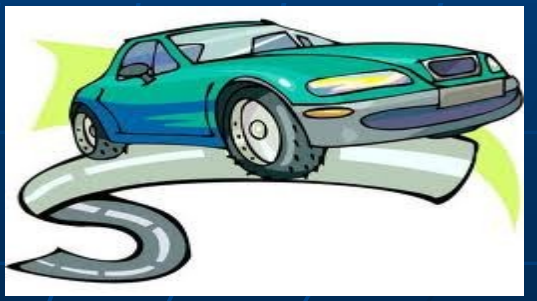
Vienna Conventions : milestones not to miss the track

- Bring the legislation to be updated so to be a valuable tool for perceived safety advencement, for creating a substantial difference in the quality of life
- *The technological pattern bolted in current rules asset, both at international and at national level.*
- *So far, the allignment of the Vienna Convention and the Technical Provisions is on the way..*



The driver

- **Art. 8, 5**:
- *"5. Every driver shall at all times be able to control his vehicle or to guide his animals."*
- **Art. 13 No. 1:**
- *"1. Every driver of a vehicle shall in all circumstances have his vehicle under control so as to be able to exercise due and proper care and to be at all times in a position to perform all manoeuvres required of him."*



Technology for safety

- WP1 Work In Progress , reshaping the context , retaining the values
- ***5. Every driver shall at all times be able to control his vehicle ….***
- **Driver assistance systems shall not be considered contrary to the principles of the Convention when:**
- **- they only optimise at technical level some functions**
- **- they operate in case of emergency**
- **The issue :**
- **- Overideability or " exclusion " of these systems – how to conciliate this possibility with Road Safety utmost important objectives ?**

Where does the driver stands ?

The work out solution must be compliant with different criteria:

- The existing technology
- Liability – WHO ?
- Feasibility –Reliability of equipment (of standardized equipment which could be through specific agreed standards) / CBA [Cost Benefit Analysis]
- Legal framework of impact (i.e. Traffic Code)

Work In Progress

- Road Safety Forum is working together with other UNECE working to get to a solution consistent with the existing technology, pacing up the Convention with the Technical provisions
- But , at the same time, a global solution clearly identifying the role of the driver in the context of a safer mobility for all the road users.

More….

- http://www.unece.org/fileadmin/DAM/trans/charts/UNECE_Transport_Division_Organizational_Chart_2012.pdf
- http://www.unece.org/trans/wp1/publications/spectrum_road_safety_activites.html
- General Assembly Resolution on Improving global road safety (A/66/L.43) - (19 April 2012)
- General Assembly Resolution on Improving global road safety (A/RES/64/255) - (10 May 2010)
- General Assembly Resolution on Improving global road safety (A/RES/62/244) - (25 April 2008)
- General Assembly Resolution on Improving global road safety (A/RES/60/5) - (1 December 2005)
- http://www.unece.org.unecedev.colo.iway.ch/trans/conventn/legalinst.html#7
- http://www.unece.org.unecedev.colo.iway.ch/trans/main/welcwp29.html

Thanks

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